

WHAT IS CLAIMED IS:

1. A flexible printed circuit board (FPCB) connection mechanism configured to electrically connect two bodies of a foldable type handset, the FPCB connection mechanism, comprising:

a first connector connected to one end of a first FPCB; and

a second connector rotatably coupled to the first connector, wherein the second connector is configured to connect to one end of a second FPCB.

2. The mechanism of claim 1, wherein the first connector is configured to be installed on a first body and the second connector is configured to be installed on a second body.

3. The mechanism of claim 2, wherein the first connector is formed in a substantially cylindrical shape with a connecting hole formed in the longitudinal direction thereof, and wherein the second connector comprises a connecting protrusion formed in a substantially cylindrical shape configured to correspond to the connecting hole of the first connector, wherein the connecting protrusion is configured to be rotatably inserted into the connecting hole.

4. The mechanism of claim 3, wherein the first connector further comprises a plurality of first electrodes arranged on an inner circumferential surface of the connecting hole, and wherein the second connector further comprises a plurality of second electrodes

arranged on an outer circumferential surface of the connecting protrusion, and wherein the plurality of first and second electrodes are configured to contact each other when the first connector and the second connector are coupled.

5. The mechanism of claim 4, wherein the first connector further comprises a first slot formed on an outer circumferential surface thereof, said first slot configured to receive an electrode pin formed extended at one end of the first FPCB.

6. The mechanism of claim 5, wherein the first slot is configured to be electrically connected to the plurality of first electrodes.

7. The mechanism of claim 4, wherein the second connector further comprises a second slot formed on an outer circumferential surface thereof, said second slot configured to receive an electrode pin formed extended at one end of the second FPCB.

8. The mechanism of claim 7, wherein the second slot is configured to be electrically connected to the plurality of second electrodes.

9. The mechanism of claim 6, wherein the second connector further comprises a second slot formed on an outer circumferential surface thereof, said second slot configured to receive an electrode pin formed extended at one end of the second FPCB.

10. The mechanism of claim 9, wherein the second slot is configured to be electrically connected to the plurality of second electrodes.

11. A flexible printed circuit board (FPCB) connection mechanism, comprising:
a first FPCB;
a second FPCB; and
a coupler configured to rotatably couple the first FPCB and the second FPCB, and to provide an electrical connection between the first FPCB and the second FPCB.

12. The mechanism of claim 11, wherein the first FPCB is configured to be installed on a first body, and the second FPCB is configured to be installed on a second body, and wherein the coupler is further configured to maintain an electrical connection between the first FPCB and the second FPCB when the first body and the second body are rotated relative to one another.

13. The mechanism of claim 11, the coupler comprising:
a first connector configured to connect to one end of the first FPCB; and
a second connector rotatably coupled to the first connector, wherein the second connector is configured to connect to one end of the second FPCB.

14. The mechanism of claim 13, wherein the first connector is formed in a substantially cylindrical shape with a connecting hole formed in the longitudinal direction

thereof, and wherein the second connector comprises a connecting protrusion configured to be rotatably inserted into the connecting hole of the first connector.

15. The mechanism of claim 14, wherein the connecting protrusion is formed in a substantially cylindrical shape configured to correspond to the connecting hole of the first connector.

16. The mechanism of claim 14, wherein the first connector further comprises a plurality of first electrodes arranged on an inner circumferential surface of the connecting hole, and the second connector further comprises a plurality of second electrodes arranged on an outer circumferential surface of the connecting protrusion, and wherein the plurality of first electrodes and plurality of second electrodes are configured to contact each other when the first connector and the second connector are coupled.

17. The mechanism of claim 16, wherein the first connector further comprises a first slot formed on an outer circumferential surface thereof, said first slot configured to receive a first electrode pin formed at one end of the first FPCB.

18. The mechanism of claim 17, wherein the first slot is configured to form an electrical connection with the plurality of first electrodes.

19. The mechanism of claim 16, wherein the second connector further comprises a second slot formed on an outer circumferential surface thereof, said second slot configured to receive a second electrode pin formed at one end of the second FPCB.

20. The mechanism of claim 19, wherein the second slot is configured to form an electrical connection with the plurality of second electrodes.

21. An apparatus, comprising:
a first body having a first electronic circuitry;
a second body having a second electronic circuitry; and
a coupler that couples the first body and the second body such that at least one of the first and second bodies are rotatable around the coupler, wherein the coupler includes an electrical connector unit to allow coupling between the first and second electronic circuitries.

22. The apparatus of claim 21, wherein the coupler comprises:
a first connector connected to one end of a first flexible printed circuit board (FPCB), wherein the first FPCB is installed on the first body; and
a second connector rotatably coupled to the first connector, wherein the second connector is connected to one end of a second FPCB, and wherein the second FPCB is installed on the second body.

23. The apparatus of claim 22, wherein the coupler is configured to maintain an electrical connection between the first FPCB and the second FPCB when the first body and the second body are rotated relative to one another.

24. The apparatus of claim 23, wherein the first connector is formed in a substantially cylindrical shape with a connecting hole formed in the longitudinal direction thereof, and the second connector comprises a connecting protrusion formed in a substantially cylindrical shape corresponding to the connecting hole of the first connector, wherein the connecting protrusion is rotatably inserted into the connecting hole.

25. The apparatus of claim 24, wherein the first connector further comprises a plurality of first electrodes arranged on an inner circumferential surface of the connecting hole, and the second connector further comprises a plurality of second electrodes arranged on an outer surface of the connecting protrusion, wherein the plurality of first electrodes and the plurality of second electrodes contact each other when the first connector and the second connector are coupled.

26. The apparatus of claim 25, wherein the first connector further comprises a first slot formed on an outer circumferential surface thereof, said first slot configured to receive a first electrode pin formed at one end of the first FPCB, and to form an electrical connection with the plurality of first electrodes.

27. The apparatus of claim 25, wherein the second connector further comprises a second slot formed on an outer circumferential surface thereof, said second slot configured to receive a second electrode pin formed at one end of the second FPCB, and to form an electrical connection with the plurality of second electrodes.